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SUBCONTRACT NO. JCI-6-PROFORMA

UNDER

PRIME CONTRACT NO. DE-AC36-99GO10337

CONTRACTING PARTY: MIDWEST RESEARCH INSTITUTE

NATIONAL RENEWABLE ENERGY LABORATORY

DIVISION

SUBCONTRACTOR:

ADDRESS:

SUBCONTRACT TITLE: "DETERMINATION OF PHYSIOCHEMICAL

PROPERTIES OF FUEL AND OIL SAMPLES"

TYPE OF SUBCONTRACT: FIXED UNIT PRICE - INDEFINITE

DELIVERY/INDEFINITE QUANTITY WITH OPTIONS

PERIOD OF PERFORMANCE: BASE: **EXECUTION THROUGH 12 MONTHS**

> OPTION I: MONTH 13 THROUGH MONTH 24 OPTION II: MONTH 25 THROUGH MONTH 36

NOT-TO-EXCEED BASE: \$*.00

SUBCONTRACT AMOUNT: OPTION I: \$*.00

\$*.00 OPTION II: \$*.00 TOTAL:

PAYMENT TERMS: NET 30

SUBCONTRACTOR'S

REMITTANCE NAME AND ADDRESS:

FUNDED AMOUNT AND

\$* TASK CHARGE NUMBER:

SUBCONTRACT NO. JCI-6-PROFORMA

BETWEEN

MIDWEST RESEARCH INSTITUTE

NATIONAL RENEWABLE ENERGY LABORATORY DIVISION

AND

*

SCHEDULE

INTRODUCTION

THIS SUBCONTRACT is effective upon execution by the Midwest Research Institute, National Renewable Energy Laboratory Division and is between the Midwest Research Institute, acting through its National Renewable Energy Laboratory Division (hereinafter called "NREL") and * (hereinafter called "Subcontractor"), whose principal offices are located in *.

Midwest Research Institute has entered into Contract No. DE-AC36-99GO10337 (hereinafter called "Prime Contract") with the Department of Energy (hereinafter called "DOE"), an agency of the U.S. Government (hereinafter called "Government"), for the operation and management of the National Renewable Energy Laboratory.

This subcontract is entered into in furtherance of the performance of the work provided for in the Prime Contract.

AGREEMENT

NOW, THEREFORE, the parties hereto agree to the following terms and conditions:

ARTICLE 1 - THE WORK TO BE PERFORMED

- A. The Subcontractor shall perform the work generally described as "Determination of Physiochemical Properties of Fuel and Oil Samples," and specifically provided for in Appendix A, Statement of Work, attached hereto and made a part hereof, pursuant to the provisions of this subcontract.
- B. Specific deliverables, quantities, due dates, reporting requirements, and addresses are set forth in Appendix A hereto.

ARTICLE 2 - THE PERIOD OF PERFORMANCE AND OPTION TO EXTEND THE TERM OF THE SUBCONTRACT

The period of performance under this subcontract shall be as follows:

Base Period: Execution through twelve (12) months

Option I: Month 13 through Month 24
Option II: Month 25 through Month 36

Each of these periods may be extended by mutual written agreement of the parties. NREL will make a decision, based on its sole judgment, whether or not to continue and exercise either Option period of this subcontract, prior to the completion date of the Base Period or Option I. If both Option period is exercised by NREL, the total period of performance for the Base and Option periods would be thirty-six (36) months.

ARTICLE 3 - FIXED UNIT PRICES, PAYMENT, AND CEILING AMOUNT

- A. The Subcontractor shall perform the work called for under this subcontract on a fixed unit price basis. The actual work to be performed shall be determined by the actual units performed or delivered under this subcontract. The Subcontractor shall receive compensation as specified hereunder, for all services and work performed under the Base Period up to a ceiling price of \$*.
- B. This subcontract provides for one option period at a ceiling price, if exercised by NREL, of \$*. The ceiling amounts are broken down as follows:

Base: \$*
Option I: \$*
Option II: \$<u>*</u>
Total \$*

If either Option period is exercised by NREL, NREL shall pay the Subcontractor in full consideration of the Subcontractor's performance there under, the prices stipulated in C below, less any deductions provided in this subcontract for the option. Neither Option period is funded under this basic subcontract. If NREL exercises either option, funding will be allotted pursuant to Article 2 - The Period of Performance and Option to Extend the Term of the Subcontract and this Article.

- C. Pursuant to the article entitled "Limitation of Funds" of this Schedule, the amount of \$* has been allotted and is available for payment of allocable and allowable costs under this subcontract. It is estimated that the allotted amount will cover work under this subcontract through *.
- D. The amount of \$*, presently obligated by NREL with respect to this subcontract, may be unilaterally increased by NREL by written notice to the Subcontractor, and may be increased or decreased by written agreement of the parties by formal modification of this subcontract.
- E. The giving of any notice by either party under this article, the article entitled "The Period of Performance..." or the article entitled "Limitation of Funds..." of this Schedule, as

applicable, shall not be construed to waive or impair any rights of NREL to terminate this subcontract under the provisions of the termination clause(s) contained in Appendix B.

F. Schedule of Fixed Unit Prices

The amounts shall be computed by multiplying the appropriate fixed unit price set forth below by the number of units performed or delivered in accordance with this subcontract. The fixed unit prices include all direct and indirect costs and profit associated therewith. The fixed unit prices for this subcontract are as follows:

BASE PERIOD (Execution through 12 months)

<u>No.</u>	Unit Description *	Fixed Unit Price (Quantities 1-*) \$*	Fixed Unit Price (Quantities *+) \$*
	OPTION I (Month 13 through Month 24)		
<u>No.</u>	Unit Description	Fixed Unit Price (Quantities 1-*)	Fixed Unit Price (Quantities *+)
*	*	\$*	\$ *
	OPTION II (Month 25 through Month 36)		
	Or Hold if (Month 25 through Month 30)	Fixed Unit Price	Fixed Unit Price
<u>No.</u>	Unit Description *	(Quantities 1-*)	(Quantities *+)
		\$ *	\$ *

G. The fixed hourly rates set forth in this Article shall not be varied by virtue of the Subcontractor having performed work on an overtime basis, unless such overtime was specifically authorized in advance in writing by the Subcontract Administrator. If no overtime rates are provided in the Schedule and overtime work is approved in advance by the Subcontract Administrator, overtime rates shall be negotiated. Failure to agree upon these overtime rates shall be treated as a dispute under the Disputes clause of this subcontract. If the Schedule provides rates for overtime, the premium portion of those rates will be reimbursable only to the extent the overtime is approved by the Subcontract Administrator.

H. <u>Ceiling Amount</u>

NREL shall not be obligated to pay the Subcontractor any amount in excess of the ceiling amount set forth in this article, and the Subcontractor shall not be obligated to continue performance if to do so would exceed the ceiling amount set forth in this article, unless and until the Subcontract Administrator shall have notified the Subcontractor in writing that the ceiling amount has been increased and shall have specified in the notice a revised ceiling that shall constitute the ceiling amount for performance under this subcontract. When and to the extent that the ceiling amount set forth in this article has been increased, any hours expended and expenses incurred by the Subcontractor in excess of the ceiling amount before the increase shall be allowable to the same extent as if the hours expended and expenses had been incurred after the increase in the ceiling amount.

I. Audit

At any time before final payment under this subcontract the Subcontract Administrator may request audit of the invoices and substantiating material. Each payment previously made shall be subject to reduction to the extent of amounts, on preceding invoices, that are found by the Subcontract Administrator not to have been properly payable and shall also be subject to reduction for overpayments or to increase for underpayments. Upon receipt and approval of the invoice designated by the Subcontractor as the "completion invoice" and substantiating documentation, and upon compliance by the Subcontractor with all terms of this subcontract (including, without limitation, terms relating to release of claims, terms relating to patent clearance, and the terms of Article 5 -Invoices) NREL shall promptly pay any balance due the Subcontractor. The completion invoice and substantiating documentation, shall be submitted by the Subcontractor as promptly as practicable following completion of the work under this subcontract, but in no event later than one (1) year (or such longer period as the Subcontract Administrator may approve in writing) from the date of completion.

ARTICLE 4 - LIMITATION OF FUNDS AND LIMITATION OF COST

The Limitations of Funds clause contained in Appendix B shall be operable during such time that NREL incrementally allots additional funds to this subcontract as set forth in Article 3 – Fixed Unit Prices, Payments and Ceiling Amount. (The Limitations of Cost clause shall be inoperable during such time.)

The Limitations of Cost clause contained in Appendix B shall become operable at such time that NREL allots to this subcontract an amount equal to the total estimated NREL cost set forth in Article 3 – Fixed Unit Prices, Payments and Ceiling Amount. (The Limitations of Funds clause shall be inoperable at such time.)

ARTICLE 5 - INVOICES

A. Invoices

1. Invoices for work accomplished under this subcontract shall be submitted in an original and one copy to:

National Renewable Energy Laboratory Attn: TBD 1617 Cole Boulevard Golden, CO 80401-3393

- 2. To facilitate processing and payment each invoice must contain the following information:
 - a) date of invoice:
 - b) subcontract number that appears on the cover sheet of this subcontract;
 - c) separate line items for each fixed unit price, including quantity;
 - d) total amount of invoice; and
 - e) any other information or documentation required by other provisions of this subcontract.

Payments under this subcontract shall be made in accordance with this article and the payment terms. Payments will be made to the Subcontractor's remittance name and address shown on the cover sheet of this subcontract. The NREL Subcontract Administrator may determine that a condition precedent to final payment under this subcontract requires the receipt of a final executed Release of Claims from the subcontractor and the receipt of any required patent clearance from DOE.

- 3. The payment terms of this subcontract shall mean net days from the date of receipt of an acceptable invoice or the date of receipt and acceptance of all deliverables, reporting requirements or closeout documentation for the period covered by the invoice, whichever is later.
- 4. An authorized representative of the Subcontractor shall sign the following certification on each invoice submitted for payment:

"I certify that this invoice is correct and proper for payment, and reimbursement for these costs has not and will not be received under any other Government contract or subcontract or other source of Government funds.

Authorized Official	Date"

- 5. The Subcontractor is hereby notified that NREL may withhold payment on invoices submitted, if the Subcontractor has failed to comply with or is delinquent in the submission of the reporting or deliverable requirements under this subcontract, until such time as the Subcontractor has complied or submitted such reporting or deliverable requirements.
- 6. NREL shall pay the Subcontractor, after the submission of proper invoices, the prices stipulated in this subcontract for supplies delivered and accepted or services rendered and accepted, less any deductions provided in this subcontract. Unless otherwise specified in this subcontract, payment shall be made on partial deliveries accepted by NREL if -
 - a. The amount due on the deliveries warrants it; or
 - b. The Subcontractor requests it and the amount due on the deliveries is at least \$1,000 or 50 percent of the total subcontract price.

B. Release of Claims

The Subcontractor shall execute and deliver at the completion of this subcontract, a release of claims discharging the Government and NREL, their officers, agents, and employees of and from all liabilities, obligations, and claims arising out of or under this subcontract, subject only to the following exceptions:

1. Specified claims in stated amounts, or in estimated amounts if the amounts are not susceptible of exact statement by the Subcontractor.

Claims, together with reasonable incidental expenses, based upon the liabilities of the Subcontractor to third parties arising out of performing this subcontract, that are not known to the Subcontractor on the date of the execution of the release, and of which the Subcontractor gives notice in writing to the Subcontract Administrator not more than 6 years after the date of the release or the date of any notice to the Subcontractor that NREL is prepared to make final payment, whichever is earlier.

3. Claims for reimbursement of costs (other than expenses of the Subcontractor by reason of its indemnification of NREL against patent liability), including reasonable incidental expenses, incurred by the Subcontractor under the terms of this subcontract relating to patents.

ARTICLE 6 - WORK ORDER PROCESS

The process for issuing Work Orders under this Subcontract shall be as follows:

- A. Any supplies or services to be furnished under this subcontract shall be ordered by issuance of work orders by the individuals designated below. Such orders may be issued during the subcontract performance period as stipulated in Article 2 entitled, "The Period of Performance..." of this Subcontract.
- B. All work orders are subject to the terms and conditions of this subcontract. In the event of conflict between a work order and this subcontract, the subcontract shall control.
- C. If mailed, a work order is considered "issued" when the authorized individuals or activity deposits the order in the mail. All orders shall be issued in writing and shall contain the following information:
 - 1. Description of work;
 - Location;
 - Required response time;
 - 4. Specific instructions.
- D. The following individuals or activities are hereby authorized to place orders against this subcontract in amounts not to exceed the specified ceiling price or amount for each individual or activity:

E. The work order number shall be referenced on the invoice and the submitted reports.

ARTICLE 7 - INDEFINITE QUANTITY

A. This is an indefinite-quantity subcontract for the supplies or services specified, and effective for the period stated in the Schedule. The quantities of supplies and services specified in the Schedule are unknown.

- B. Delivery of performance shall be made only as authorized by orders issued in accordance with the Ordering article. The Subcontractor shall furnish to NREL, when and if ordered, the supplies or services specified in the Schedule.
- C. There is no limit on the number of orders that may be issued. NREL may issue orders requiring delivery to multiple destinations or performance at multiple locations.
- D. Any order issued during the effective period of this subcontract and not completed within that period shall be completed by the Subcontractor within the time specified in the order. The subcontract shall govern the Subcontractor's and NREL's rights and obligations with respect to that order to the same extent as if the order were completed during the subcontract's effective period; provided, that the Subcontractor shall not be required to make any deliveries under this subcontract after sixty (60) days after the expiration date of this subcontract.

ARTICLE 8 - APPLICABLE DOCUMENTATION

In addition to the terms and conditions contained in this Schedule, the following documents are attached hereto and made a part of this subcontract:

- A. Appendix A, entitled "Statement of Work" dated 08/03/06.
- B. Appendix B-3, entitled "Standard Terms and Conditions" dated 10/01/03.
- C. Appendix C-2, entitled "Intellectual Property Provisions" dated 10/22/98.
- D. Appendix D-1, entitled "Clauses for Subcontracts in Excess of \$500,000", dated 11/01/2003.
- E. Appendix F, entitled "Small Business Lower-tier Subcontracting Plan", dated * [if required].
- F. Subcontractor's technical proposal dated *, together with any revisions, is hereby incorporated by reference. In the event there is a conflict between the Subcontractor's technical proposal and any other provisions of this subcontract, the latter shall prevail.

ARTICLE 9 - ORDER OF PRECEDENCE

Any inconsistency in this subcontract, shall be resolved by giving precedence in the following order:

- A. This Schedule;
- B. Statement of Work (Appendix A);
- C. Standard Terms and Conditions (Appendix B-3);
- D. Intellectual Property Provisions (Appendix C-2);
- E. Clauses for Subcontracts in Excess of \$500,000 (Appendix D-1);

- F. Small Business Lower-tier Subcontracting Plan (Appendix F) [if required];
- G. Other provisions of this subcontract whether incorporated by reference or otherwise; and
- H. The Subcontractor's technical proposal, if incorporated in this subcontract by reference or otherwise.

ARTICLE 10 - RIGHTS TO PROPOSAL DATA

Except for technical data contained on pages (None) of the subcontractor's proposal dated * which are asserted by the Subcontractor as being proprietary data, it is agreed that, as a condition of the award of this subcontract, and notwithstanding the provisions of any notice appearing on the proposal, the Government and NREL shall have the right to use, duplicate, disclose and have others do so for any purpose whatsoever, the technical data contained in the proposal upon which this subcontract is based.

ARTICLE 11- SUBCONTRACT ADMINISTRATION RESPONSIBILITIES

- A. Signature Authority: This subcontract may only be modified by a formal modification signed by an authorized official of NREL.
- B. Subcontract Administration Responsibilities: The authorized official of NREL has designated * as the Subcontract Administrator for this subcontract with the responsibilities for subcontract administration and negotiation of any modifications to this subcontract. The Subcontract Administrator's telephone number is *.
- C. Technical Monitoring Responsibilities: The authorized official of NREL has designated * as the Technical Monitor for this subcontract with the responsibilities of monitoring the technical work or services to be performed under this subcontract. The Technical Monitor does not have the authority to make any commitments or authorize any changes, which may affect the subcontract's cost, scope of work, terms, or conditions. Any such changes shall be referred to the Subcontract Administrator designated in Paragraph B above. The Technical Monitor's telephone number is *.

ARTICLE 12 - KEY PERSONNEL

A. It having been determined that the individuals, whose names appear below, are necessary for the successful performance of this subcontract, the Subcontractor agrees to assign or have assigned such individuals to the performance of the work under this subcontract and shall not reassign or remove any of them without the consent of the Subcontract Administrator by modification to this subcontract:

Name Project Title Contact Information

B. Whenever, for any reason, one or more of the designated key personnel designated above, is unavailable for assignment for work under this subcontract, the Subcontractor

shall, with the approval of the Subcontract Administrator, replace such individual with an individual of substantially equal abilities and qualifications.

ARTICLE 13 - PUBLICITY RELEASE AND PUBLIC AFFAIRS (domestic small business, educational institutions and other non profit organizations)

- A. Publicity release of any nature in connection with this Task Ordering Agreement shall be coordinated as provided in the "Public Affairs" clause of Appendix B. The Subcontractor shall not make without prior review and approval of the NREL Subcontract Administrator, any publicity release of any nature of general, non-technical information in connection with this subcontract. For purposes of this Task Ordering Agreement, general, non-technical information means any information concerning the existence of the Task Ordering Agreement, the identity of the parties, and the scope and general character of the research or technical activity. As used in this Article, "publicity release" does not include a lawful inspection of the Subcontractor's records conducted pursuant to Federal or State public records access statutes. The Subcontractor may report specifics regarding the formation and execution of this subcontract in its internal publications without prior review and approval of the NREL Subcontract Administrator.
- B. Data rights are set forth in Appendix C hereof.

OR

ARTICLE 13 - PUBLICITY RELEASE AND PUBLIC AFFAIRS (large businesses, state and local governments or foreign organizations)

- A. Publicity release of any nature in connection with this Task Ordering Agreement shall be coordinated as provided in the "Public Affairs" clause of Appendix B. The Subcontractor shall not make without prior review and approval of the NREL Subcontract Administrator, any publicity release of any nature of general, non-technical information in connection with this subcontract. For purposes of this Task Ordering Agreement, general, non-technical information means any information concerning the existence of the Task Ordering Agreement, the identity of the parties, and the scope and general character of the research or technical activity. As used in this Article, "publicity release" does not include a lawful inspection of the Subcontractor's records conducted pursuant to Federal or State public records access statutes. The Subcontractor may report specifics regarding the formation and execution of this subcontract in its internal publications without prior review and approval of the NREL Subcontract Administrator.
- B. Data rights are set forth in Appendix C hereof. The Subcontractor should particularly note that all papers and documents that are required for submittal and distribution for patent clearance under this Task Ordering Agreement should first be submitted to the Department of Energy, Intellectual Property Law Division, Chicago Operations Office, 9800 South Cass Avenue, Argonne, Illinois 60439 prior to distribution to the public. This requirement of patent clearance prior to publication of all Subcontractor's reports is specifically required and set forth in Appendix C hereof.

ARTICLE 14 – ALTERATIONS TO TERMS AND CONDITIONS

Appendix B-2 – Standard Terms and Conditions is hereby modified by adding the following:

"CLAUSE 57 ACCOUNTS, RECORDS, AND INSPECTION (DEC 2000) (ALTERNATE
I) (DEC 2002) AND (ALTERNATE II) (DEC 2000) (SPECIAL) (FEB 2006) Derived from
DEAR 970.5232-3 (FD)

(Applies to all cost type subcontracts. Applies to all fixed price or unit price subcontracts where under the terms of the subcontract, costs incurred are a factor in determining the amount payable to the Subcontractor.)

ALTERNATE I

Use Alternate I for all subcontract exceeding \$550,000.00 and the clause "Subcontract Price Reduction for Defective Cost or Pricing Data" is applicable to the subcontract.

ALTERNATE II

Use Alternate II for cost type subcontracts exceeding \$5 million and expected to run for more than 2 years or cost type subcontracts, as determined by the NREL Subcontract Administrator, where the Subcontractor has an established internal audit organization.

The clause titled "Accounts, Records, and Inspection" is modified by adding at the end of the clause the following Paragraph, appropriately identified as Paragraph I when (i) the clause with no Alternate is applicable and (ii) Alternate I is applicable. Appropriately identified as Paragraph J when Alternate II is applicable).

- (*). Statement of Cost Incurred and Claimed. At any time during subcontract performance, should the NREL Subcontract Administrator determine that the costs incurred are unallowable to an extent to cause a loss of confidence in the Subcontractor's management controls or the Subcontractor's management systems that validate the costs incurred and claimed, the NREL Subcontract Administrator may, in his or her sole discretion, impose conditions upon the Subcontractor including direction that specific types of cost be claimed by periodic vouchering. In addition, the NREL Subcontract Administrator may direct the Subcontractor to pay the NREL an amount equal to the unallowable costs or payments improperly made and take any other action or combination of actions provided in this subcontract, at law, or in equity. This action shall not relieve the Subcontractor from any obligation to perform its obligations under this subcontract."
- "CLAUSE 58 RESEARCH MISCONDUCT (JUL 2005) Derived from DEAR 952.235-71 (FD)

(Applies to all subcontracts where the Subcontractor will propose, perform, or review research of any kind.)

- A. The Subcontractor is responsible for maintaining the integrity of research performed pursuant to this subcontract award including the prevention, detection, and remediation of research misconduct as defined by this clause, and the conduct of inquiries, investigations, and adjudication of allegations of research misconduct in accordance with the requirements of this clause.
- B. Unless otherwise instructed by the NREL Subcontract Administrator, the Subcontractor must conduct an initial inquiry into any allegation of research misconduct. If the

Subcontractor determines that there is sufficient evidence to proceed to an investigation, it must notify the NREL Subcontract Administrator and, unless otherwise instructed, the Subcontractor must:

- Conduct an investigation to develop a complete factual record and an examination of such record leading to either a finding of research misconduct and an identification of appropriate remedies or a determination that no further action is warranted;
- 2. If the investigation leads to a finding of research misconduct, conduct an adjudication by a responsible official who was not involved in the inquiry or investigation and is separated organizationally from the element which conducted the investigation. The adjudication must include a review of the investigative record and, as warranted, a determination of appropriate corrective actions and sanctions.
- 3. Inform the NREL Subcontract Administrator if an initial inquiry supports a formal investigation and, if requested by the NREL Subcontract Administrator thereafter, keep the NREL Subcontract Administrator informed of the results of the investigation and any subsequent adjudication. When an investigation is complete, the subcontractor will forward to the NREL Subcontract Administrator a copy of the evidentiary record, the investigative report, any recommendations made to the Subcontractor's adjudicating official, and the adjudicating official's decision and notification of any corrective action taken or planned, and the subject's written response (if any).
- C. NREL/DOE may elect to act in lieu of the Subcontractor in conducting an inquiry or investigation into an allegation of research misconduct if the NREL Subcontract Administrator finds that:
 - 1. The research organization is not prepared to handle the allegation in a manner consistent with this clause;
 - 2. The allegation involves an entity of sufficiently small size that it cannot reasonably conduct the inquiry;
 - 3. NREL/DOE involvement is necessary to ensure the public heath, safety, and security, or to prevent harm to the public interest; or,
 - 4. The allegation involves possible criminal misconduct.
- D. In conducting the activities under paragraphs B and C of this clause, the Subcontractor and NREL, if it elects to conduct the inquiry or investigation, shall adhere to the following guidelines:
 - Safeguards for information and subjects of allegations. The Subcontractor shall
 provide safeguards to ensure that individuals may bring allegations of research
 misconduct made in good faith to the attention of the Subcontractor without
 suffering retribution. Safeguards include: protection against retaliation; fair and
 objective procedures for examining and resolving allegations; and diligence in

protecting positions and reputations. The Subcontractor shall also provide the subjects of allegations confidence that their rights are protected and that the mere filing of an allegation of research misconduct will not result in an adverse action. Safeguards include timely written notice regarding substantive allegations against them, a description of the allegation and reasonable access to any evidence submitted to support the allegation or developed in response to an allegation and notice of any findings of research misconduct.

- 2. Objectivity and Expertise. The Subcontractor shall select individual(s) to inquire, investigate, and adjudicate allegations of research misconduct that have appropriate expertise and have no unresolved conflict of interest. The individual(s) who conducts an adjudication must not be the same individual(s) who conducted the inquiry or investigation, and must be separate organizationally from the element that conducted the inquiry or investigation.
- Timeliness. The Subcontractor shall coordinate, inquire, investigate and adjudicate allegations of research misconduct promptly, but thoroughly.
 Generally, an investigation should be completed within 120 days of initiation, and adjudication should be complete within 60 days of receipt of the record of investigation.
- 4. Confidentiality. To the extent possible, consistent with fair and thorough processing of allegations of research misconduct and applicable law and regulation, knowledge about the identity of the subjects of allegations and informants should be limited to those with a need to know.
- 5. Remediation and Sanction. If the Subcontractor finds that research misconduct has occurred, it shall assess the seriousness of the misconduct and its impact on the research completed or in process. The Subcontractor must take all necessary corrective actions. Such action may include but are not limited to, correcting the research record and as appropriate imposing restrictions, controls, or other parameters on research in process or to be conducted in the future. The Subcontractor must coordinate remedial actions with the NREL Subcontract Administrator. The Subcontractor must also consider whether personnel sanctions are appropriate. Any such sanction must be considered and effected consistent with any applicable personnel laws, policies, and procedures, and shall take into account the seriousness of the misconduct and its impact, whether it was done knowingly or intentionally, and whether it was an isolated event or pattern of conduct.
- E. NREL/DOE reserves the right to pursue such remedies and other actions as it deems appropriate, consistent with the terms and conditions of the award instrument and applicable laws and regulations. However, the Subcontractor's good faith administration of this clause and the effectiveness of its remedial actions and sanctions shall be positive considerations and shall be taken into account as mitigating factors in assessing the need for such actions. If NREL/DOE pursues any such action, it will inform the subject of the action of the outcome and any applicable appeal procedures.

G. Definitions.

<u>Adjudication</u> means a formal review of a record of investigation of alleged research misconduct to determine whether and what corrective actions and sanctions should be taken.

Fabrication means making up data or results and recording or reporting them.

<u>Falsification</u> means manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

<u>Finding of Research Misconduct</u> means a determination, based on a preponderance of the evidence that research misconduct has occurred. Such a finding requires a conclusion that there has been a significant departure from accepted practices of the relevant research community and that it be knowingly, intentionally, or recklessly committed.

<u>Inquiry</u> means information gathering and initial fact-finding to determine whether an allegation or apparent instance of misconduct warrants an investigation.

Investigation means the formal examination and evaluation of the relevant facts.

<u>Plagiarism</u> means the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

<u>Research</u> means all basic, applied, and demonstration research in all fields of science, medicine, engineering, and mathematics, including, but not limited to, research in economics, education, linguistics, medicine, psychology, social sciences statistics, and research involving human subjects or animals.

<u>Research Misconduct</u> means fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results, but does not include honest error or differences of opinion.

<u>Research record</u> means the record of all data or results that embody the facts resulting from scientists' inquiries, including, but not limited to, research proposals, laboratory records, both physical and electronic, progress reports, abstracts, theses, oral presentations, internal reports, and journal articles.

- G. By executing this subcontract, the Subcontractor provides its assurance that it has established an administrative process for performing an inquiry, mediating if possible, or investigating, and reporting allegations of research misconduct; and that it will comply with its own administrative process and the requirements of 10 CFR part 733 for performing an inquiry, possible mediation, investigation and reporting of research misconduct.
- H. The Subcontractor must insert or have inserted the substance of this clause, including paragraph (g), in subcontracts at all tiers that involve research."

ARTICLE 15 - INTEGRATION

This subcontract contains the entire understanding between the parties, and there are no understandings or representations except those set forth or incorporated by reference herein. No subsequent modifications of this subcontract shall be of any force or effect unless in writing signed by a duly authorized official of NREL.

IN WITNESS WHEREOF, the parties hereto have executed this subcontract as of the date fully signed below.

ACCEPTED: *	AUTHORIZED: MIDWEST RESEARCH INSTITUTE NATIONAL RENEWABLE ENERGY LABORATORY DIVISION
BY:	BY:
NAME:	NAME:
TITLE:	TITLE:
DATE:	DATE: